

Memorandum



City of Tempe

Date: August 23, 2016
To: Mayor and Council
Through: Councilmembers Granville & Kuby
From: Kristin Gwinn, Council Aide
Subject: **Water Conservation Working Group Recommendation**

BACKGROUND:

On September 3, 2015, the Mayor and Council approved the request to create a City Manager's Working Group exploring the economic feasibility and conservation benefits associated with requiring gray water plumbing and rainwater harvesting in new construction within Tempe.

The Working Group met with Public Works Department staff as well as stakeholders and subject matter experts from local and national water conservation organizations, including the WaterNow Alliance. Staff provided research on gray water programs currently used in other US cities and collected feedback from local architects and builders focused on sustainable building practices. Based on that feedback and an analysis of outdated statewide regulations and costs, we determined that requiring a complete building of gray water infrastructure is cost-prohibitive for builders and likely to produce far more gray water than could reasonably be re-used. Councilmember Kuby, who represents Tempe on the Arizona Municipal Water User's Association board, recommended—and AMWUA is now in the midst of devising and eventually recommending—changes to statewide gray water rules and policies regulated by the Arizona Department of Water Resources.

Moving on from gray water, and after consultation with Public Works staff and the Chair of the Sustainability Commission, the Working Group determined that rooftop rainwater collection was likely a more affordable conservation option for builders; however, questions remain about total cost and impact on Tempe's water conservation efforts based on variables such as minimum required collection tank size, annual rainfall averages, cost savings generated by reduced meter size, and amount of collected water that each project might use.

Based on input from stakeholders and lingering questions about outcomes, the Working Group determined that, before we recommend a commercial or residential program, the City could develop and implement a two-year pilot program to test rainwater-collection technology on a variety of building sizes and types and ultimately provide more complete data on the cost and impact. Suggestions included looking at City of Tempe buildings and types, as the city owns and manages a range of products from large institutional to small-scale residential.

Additionally, the Working Group recommends that Public Works and the Sustainability Commission work together to design the pilot and to develop recommendations for code changes around rainwater collection to be implemented should the pilot succeed. In addition, the Working Group would like Public Works staff and the Sustainability Commission to make recommendations on a possible "buy-out" option that would allow developers to pay the city in lieu of implementing rainwater collection in their projects, generating funds that might be applied to other citywide water conservation efforts.

DIRECTION:

We request that Mayor and Council direct the City Manager to task Public Works and the Sustainability Commission with working together to develop a pilot program and code-change recommendations as described above and return to Council with those recommendations for final approval. We are not asking Council to approve the pilot program itself or any potential code changes at this time, but only to approve their development by staff. Because no specific funding amount or sources have been identified, Public Works will evaluate a pay-as-you-go approach, using already-budgeted Public Works water-conservation funding; leverage potential funding from facilities CIP opportunities managed by the Internal Services Department; and identify larger-scale costs if they are appropriate, in the upcoming FY 17/18 budget requests.

WORKING GROUP MEMBERS:

Councilmember Kolby Granville

Councilmember Lauren Kuby

STAFF ASSISTING THE WORKING GROUP MEMBERS:

Don Bessler, Director of Public Works

Marilyn DeRosa, Deputy Public Works Director – Water Utilities

Eric Kamienski, Water Resources Manager

Elizabeth Higgins, Chief of Staff – Mayor and Council

Kristin Gwinn, Council Aide